

**SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR
DEMODULATING QUADRATURE AMPLITUDE MODULATED
SIGNALS BASED UPON A SPEED OF A RECEIVER**

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ABSTRACT OF THE DISCLOSURE

A system, method and computer program product are provided for demodulating Quadrature Amplitude Modulated (QAM) signals based upon a speed of a receiver. The system includes a receiver and a demapping element. The receiver is capable of receiving a QAM signal over at least one slot. The demapping element can then be
10 capable of estimating the amplitude of a signal constellation of the QAM signal over either one or more of the slot(s) or fractions of the slot(s) based upon the speed of the receiver. More particularly, the demapping element can estimate the amplitude by first estimating an expectation of a power of a signal combination of a traffic symbol and a
15 pilot symbol, where the expectation can be estimated over either one or more of the slot(s) or fractions of the slot(s). The demapping element can also estimate a bias, and thereafter estimate the amplitude based upon the expectation of the power of the signal combination and the bias.